



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,592	07/11/2001	William Holm	0104-0354P	7653

2292 7590 05/04/2005

BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER

FULLER, ERIC B

ART UNIT	PAPER NUMBER
----------	--------------

1762

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/901,592

Applicant(s)

HOLM ET AL.

Examiner

Eric B. Fuller

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8,19,20,31,34 and 37-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8,19,20,31,34 and 37-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7, 8, 19, 20, 31, 34, and 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (US 6,100,787) in view Ciardella et al. (US 5,711,989), in further view of Chabert et al. (US 4,660,771) and Madeira (US 3,738,760).

Huang teaches that although screen-printing is typically used to coat broad surfaces with a viscous paste in a short amount of time, it often leads to uneven coatings (column 1, lines 10-31). The reference fails to explicitly teach smoothing these coatings. However, Ciardella discloses a nozzle jetting apparatus for jetting a viscous material. The drops are precisely sized and placed in specific locations (column 5, line 25 - column 6, line 64). Thus, the two references teach two different processes for applying viscous materials. One that is applicable for coating broad surfaces in a relatively short amount of time, but lacks precision, and one that is more precise, but obviously more time consuming if used to coat an entire substrate uniformly.

This is analogous to the processes of Chabert and Madeira. Chabert teaches large spray guns for applying paint to entire automobiles in a relatively short amount of

Art Unit: 1762

time. Madeira teaches small brushes for use in applying touch-up paint in order to correct defects in the originally applied paint. This is more precise than the spray guns of Chabert, but would obviously be more time consuming if used to paint the entire substrate. From the references, it can be inferred that one would not use a small paint brush to paint the entire automobile and would neither use a large spray gun to correct a small defect. There is an obvious trade-off between precision and deposition time, with more precision requiring more deposition time. Just as the Chabert and Madeira teaches using the less precise method (better time efficient) for coating the substrate and using the more precise method (less time efficient) for correcting defects, it would have been obvious to use screen printing process taught by Huang (the less precise method) to coat the entire surface of the substrate and use the jetting means taught by Ciardella (the more precise method) to correct the defects. By doing so, one maximizes uniformity of the coating while minimizing coating time.

All dependent limitations are taught, or made obvious, as shown in previous Office Actions.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (US 6,100,787) in view of Ciardella et al. (US 5,711,989), Chabert et al. (US 4,660,771), and Madeira (US 3,738,760), as applied to claims 2 or 3 above, and further in view of Itsuji (US 5,151,299).

Huang, in view of Ciardella, Chabert, and Madeira, teaches the limitations of claims 2 and 3, but fails to teach the correcting step comprises removing some of the

Art Unit: 1762

material. However, Itsuji teaches that screen-printing often results in the deposited material being blurred at the edges (column 1, lines 25-33). This is corrected by removing some of the material such that the edges are more defined (column 1, lines 44-63). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to remove some of the coating in Huang, in view of Ciardella, Chabert, and Madeira, such that the edges of the deposited material are better defined and not blurred.

Claims 1-5, 7, 8, 19, 20, 31, 34, and 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (US 6,100,787) in view Skinner et al. (US 6,613,240 B2).

Huang teaches that although screen-printing viscous pastes it often leads to uneven coatings (column 1, lines 10-31). The reference fails to explicitly teach smoothing these coatings. However, Skinner teaches ionized jetting means for smoothing coatings. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize the jetting means taught by Skinner in the process taught by Huang. By doing so, one would reap the benefits of increased smoothness.

All other limitations are taught, or made obvious, by Huang, as shown in previous Office Actions.

### ***Response to Arguments***

Art Unit: 1762

Applicant argues that Marumoto fails to teach correcting the errors of an all ready deposited coating, and thus fails to make obvious the claimed limitation. Examiner agrees and has withdrawn the rejections of the previous Office Action. Applicant's arguments are moot in view of the new grounds of rejection.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B Fuller whose telephone number is (571) 272-1420. The examiner can normally be reached on Mondays through Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck, can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EBF



TIMOTHY MEEKS  
SUPERVISORY PATENT EXAMINER